NATIONAL RESEARCH COUNCIL
OF THE NATIONAL ACADEMIES

DIVISION OF BEHAVIORAL AND SOCIAL SCIENCES AND EDUCATION
Board on Behavioral, Cognitive, and Sensory Sciences

BOARD ON BEHAVIORAL, COGNITIVE, AND SENSORY SCIENCES
NATIONAL RESEARCH COUNCIL
NIA Expert Meeting on Pathways and Mechanisms

May 30, 2014
Keck # 106
500 Fifth Street, NW
Washington, DC 20001

AGENDA

9:15 - 9:30	*Sign-in and Badge Pick-up*

9:30 a.m.	Closed Session of the Board of Behavior, Cognitive and Sensory Sciences (NIA Experts are Invited to Attend) *Expert meeting on Mechanisms and Pathways: An Introduction* John Cacioppo, University of Chicago, BBCSS Chair Lis Nielsen, Chief, Individual Behavioral Processes NIA

9:45	*Stress, Immune Function, and Health: Causal Relationships and Underlying Mechanisms* Janice Kiecolt-Glaser, Distinguished University Professor, Institute of Behavioral Medicine Research Ohio State University College of Medicine
10:45	Break
11:00	*Science of Behavior Change: Increasing Precision in Causal Analyses* Jonathan King and Lis Nielsen, Division of Behavioral and Social Research, NIA

12:00 p.m.	BBCSS Meeting Adjourned *Working Lunch (Meal tickets dispensed to board and invited experts)* *Framing and Discussion of the Five Readings and Questions* Lis Nielsen & David Reiss, Consultant to NIA/BSR

We have assigned 40 to 50 minutes for a discussion of each of the five questions. For each of these we are asking one or two of our invited experts to initiate discussion with a very brief presentation that is short enough to allow at least 30 minutes of open discussion for each question.

Expert Participants: David Almeida, John Cacioppo (Chair), Angela Duckworth, Elissa Epel, Janice Kiecolt-Glaser, Gregory Miller, Jenae Neiderhiser, Lis Nielsen, Marc Potenza, David Reiss, Teresa Seeman, Stephen Suomi, Jonathan King

1:00 – 1:50	*Question 1: Integrating Existing Data.* What are effective strategies for pooling, integrating or harmonizing existing data sets to form plausible hypotheses about the major pathways that link a significant antecedent to an important consequent variable? **David Reiss**, Consultant to NIA/BSR **Teresa Seeman**, Professor of Medicine & Epidemiology UCLA Schools of Medicine and Public Health

1:50 – 2:40   *Question 2: Causal Analyses of Antecedent and Consequent Variables*. Even before pathways are fully delineated, what research strategies, both analytic techniques and design innovations, are most suited to establish that the antecedent variable is causally related to the consequence variable rather simply an actuarial predictor of the consequence?
Greg Miller, Distinguished Professor and Chair, Dept. of Psychology, and Distinguished Professor, Dept. of Psychiatry and Biobehavioral Sciences, UCLA
Stephen Suomi, Chief of the Laboratory of Comparative Ethology in NICHD

2:40   Break

2:50 – 3:40   *Question 3: Testing for Mediation and Moderation*. How can we improve and apply criteria we have already developed to securely identify important mediating process on the pathway from the antecedent to the consequent variable? How can interventions or experimental procedures be introduced into large-scale survey research or major longitudinal studies to improve certainty about putative mediating variables and their malleability? Can we develop criteria for identifying moderating variables that are as explicit as those for mediation?
Angela Duckworth, Associate Professor of Psychology, University of Pennsylvania

3:40 – 4:20   *Question 4: Temporal Considerations*. Some of our major findings concern relative short temporal distances between antecedent and consequent variables whereas as others involve temporal distance of many decades. Particularly for the latter what approaches have been successful in other domains of study and how might they be applied to understand the links between factors apparent in childhood and patterns of successful aging?
David Almeida, Professor of Human Development in the College of Health and Human Development, The Pennsylvania State University
Elissa Epel, Associate Professor in the Department of Psychiatry at UCSF

4:20 – 5:00   *Question 5: Methods as Tools for Analysis of Pathways*. Are there methods and approaches that are now available for enhancing mechanistic understanding of some of our major findings. BSR has supported a broad range of studies in behavioral genetics and more recently the genotyping of large cohort studies including the HRS and WLS, as well as studies that have include measures of gene expression changes associated with psychosocial factors. Are these approaches useful for integrating into mechanistic analyses of principal findings? The same is true of our increasing support of brain imaging studies of processes involved in social, affective and economic behavior. Where might work of this kind be most useful in pushing further our understanding? Closely related are design tactics such as systematic sub-sampling of population-based survey subjects for more fine-grained laboratory study and/or theory-testing interventions.
Jenae Neiderhiser, Liberal Arts Research Professor of Psychology, The Pennsylvania State University
Marc Potenza, Director, Yale Center of Excellence in Gambling Research Director, Women and Addictions Core of Women's Health Research at Yale Professor of Psychiatry, Child Study and Neurobiology, Yale University School of Medicine

5:00-5:15	*Summary and Next Steps*
	John Cacioppo and Lis Nielsen
5:15	*Adjourn*